

Amendments to the Claims

1. (Currently Amended) A nucleic acid array comprising:
a solid support; and
a plurality of nucleic acid probes attached to the solid support at discrete locations,
wherein at least one of the probes is an alien probe in that it has a sequence that is alien to a
hybridizing mixture to be hybridized to the array;
and further wherein the sequence of the alien probe comprises a sequence that is
generated by applying a Hidden Markov Model algorithm to the natural sequence statistics of
one or more naturally-occurring sequences of interest to generate a model sequence,
with the proviso that, at an adjustable frequency, a sequence statistic of the one or more
naturally-occurring sequences of interest is switched to a sequence statistic that is inversely
proportional to the natural sequence statistic,
such that the alien sequence comprises intermittent highly improbable sequence patterns
or subsequences throughout its length,
and with the further proviso that the alien sequence does not occur naturally in any
organism.
2. (Original) The nucleic acid array of claim 1, wherein the hybridizing mixture comprises
nucleic acids from a source selected from the group consisting of human mRNA, human cDNA,
mouse cDNA, mouse mRNA, and combinations thereof.
3. (Original) The nucleic acid array of claim 1, wherein the alien probe is present in each
discrete location on the solid support.
4. (New) The nucleic acid array of claim 1, wherein the adjustable frequency comprises a
frequency between about 1 in 5.
5. (New) The nucleic acid array of claim 1, wherein the adjustable frequency comprises a
frequency between about 1 in 10.
6. (New) The nucleic acid array of claim 1, wherein the sequence statistic that is switched
is selected from the group consisting of: codon occurrence, codon boundary di-nucleotide
frequencies, and combinations thereof.

7. (New) The nucleic acid array of claim 1, wherein the alien probe comprises a sequence selected from the group consisting of SEQ ID NOs: 1-50.
8. (New) The nucleic acid array of claim 1, wherein the alien probe comprises a sequence selected from the group consisting of SEQ ID NOs: 101-150.